UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

DATE: DEC 29 2016

SUBJECT: Confirmation of Two Verbal Authorizations and Request for a Ceiling Increase for a Removal Action at the Becker Plating Inc. Site, Neptune, New Jersey

FROM: Michael J. Brescio, On-Scene Coordinator
Response and Prevention Branch

THRU: Eric Mosher, Chief
Response and Prevention Branch

TO: Water E. Mugdan, Director
Emergency and Remedial Response Division

Site ID: A26Y

I. PURPOSE

The purpose of this Action Memorandum is to document two Verbal Authorizations of funding granted by the Director of the Emergency and Remedial Response Division (ERRD), and to request a Ceiling Increase for a Removal Action at the Becker Plating Inc. Site (Site). The first Verbal Authorization was granted on July 25, 2016 and authorized a total project ceiling of $150,000, of which $120,000 was for mitigation contracting. The second Verbal Authorization was granted on August 15, 2016 and authorized a total project ceiling increase of $250,000, of which $225,000 was for mitigation contracting. The total project ceiling verbally authorized to date is $400,000, of which $345,000 is for mitigation contracting. This Action Memorandum requests the approval of a total project ceiling increase of $700,000, of which $650,000 is for mitigation contracting. Approval of this Ceiling Increase will raise the total project ceiling to $1,100,000, of which $995,000 is for mitigation contracting. This funding is being used to initiate and perform a Removal Action under the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended, at the Becker Plating Inc. Site, located in Neptune, Monmouth County, New Jersey.

The objective of the Removal Action is to mitigate the release or potential release of hazardous substances abandoned at the Site including, but not limited to, copper cyanide, nickel cyanide, potassium cyanide, chromic acid, hydrochloric acid, plating solutions, and chemicals exhibiting

the characteristic of ignitability, corrosivity, reactivity, and toxicity. This action will include, but not be limited to, the sampling, segregation, analysis and disposal of all plating solutions, treatment solutions, drummed materials and small containers located at the Site.

Conditions at the Site meet the criteria for a Removal Action under CERCLA and further documented in Section 300.415(b)(2) of the National Contingency Plan (NCP).

This Site is not on the National Priorities List (NPL), and there are no nationally significant or precedent-setting issues associated with the Site.

II. SITE CONDITIONS AND BACKGROUND

The Superfund Enterprise Management System Identification Number for the Site is NJD002193795.

A. Site Description

1. Removal Site Evaluation (RSE)

The New Jersey Department of Environmental Protection (NJDEP) received a notification that Becker Plating Inc. was in bankruptcy proceedings and conducted a site visit on July 20, 2016. The NJDEP inspector discovered the facility to be vacant and that there were vats, drums, and containers abandoned within and outside of the facility. The facility has no fire suppression system and the power to the facility was shutoff. The NJDEP inspector immediately notified the NJDEP Bureau of Emergency Response (BER) which responded to the scene along with an officer from the Neptune Office of Emergency Management (OEM). The NJDEP BER requested that the U.S. Environmental Protection Agency (EPA) meet them at the facility on July 22, 2016.

On July 22, 2016, an EPA On-Scene Coordinator from Region 2 Response and Prevention Branch met with NJDEP BER and Neptune OEM to conduct an assessment to determine Site eligibility for an EPA Removal Action. A joint entry into the building confirmed the presence of approximately 26 vats and approximately 650 containers of acids, corrosives, cyanides, and unknown materials. The building had no power, fire suppression system or security. There was also evidence of leakage from the roof in several locations in the building.

2. Physical location

The Site consists of one two-story cinder block building with a front office with a second story addition. The Site is a former electroplating facility located at 121 Highway 35, Neptune, New Jersey, 07753-4703. The Site is situated in a tightly developed, mixed residential/commercial area. The Site is bordered by businesses to the north, west, and east and to the south by a Baptist church. The nearest business is approximately ten feet from the northern site border. The nearest residences are approximately 1/8 mile west of the Site. New Jersey State Highway 35, a major thoroughfare, borders the Site to the

west. The New Jersey Transit/Amtrak North East Corridor passenger rail line is approximately ½ mile west of the Site. Neptune High School is approximately ½ mile east of the Site. The property is not fenced and is being used by several local businesses to store items on the property's parking lot.

The Site is located at the approximately 40.213341latitude and -74.029666 longitude.

3. Site characteristics

Operations at the Site ceased sometime prior to April 2016. Shortly after that time, the owner filed for bankruptcy and abandoned the facility. The plating vats, containers and most of the associated equipment still contained plating solutions as all of the chemical material associated with the plating process were abandoned at the Site. The plating processes used at the facility included the use of cyanides. The process and laboratory areas of the facility contain approximately 650 containers varying in size from 55-gallon drums to laboratory containers less than one pint in size.

This is the first Removal Action undertaken at the Site.

4. **Release or threatened release into the environment of a hazardous substance, pollutants, or contaminants**

The following materials have been identified at the Site through label information and confirmed by haz-cat results and are defined as CERCLA hazardous substances in 40 CFR Part 302.4, Table 302.4.

Hazardous Substance	Statutory Code	RCRA Waste Code
Acetic acid	CWA Section 311(b)(2)	
Cadmium compounds	CWA Section 307(a) CAA Section 112	
Chromic acid	CWA Section 311(b)(2)	
Copper cyanide Cu(CN)	RCRA Section 3001	P029
Cyanides (soluble salts and complexes) not otherwise specified	RCRA Section 3001	P030
Hydrochloric acid	CWA Section 311(b)(2) CAA Section 112	
Nickel chloride	CWA Section 311(b)(2)	
Nickel cyanide Ni(CN)2	RCRA Section 3001	P074

Nickel sulfate	CWA Section 311(b)(2)	
Nitric acid	CWA Section 311(b)(2)	
Phosphoric acid	CWA Section 311(b)(2)	
Potassium cyanide K(CN)	CWA Section 311(b)(2) RCRA Section 3001	P098
Potassium hydroxide	CWA Section 311(b)(2)	
Potassium silver cyanide	RCRA Section 3001	P099
Silver cyanide Ag(CN)	RCRA Section 3001	P104
Sodium bifluoride	CWA Section 311(b)(2)	
Sodium cyanide Na(CN)	CWA Section 311(b)(2) RCRA Section 3001	P106
Sodium fluoride	CWA Section 311(b)(2)	
Sulfuric acid	CWA Section 311(b)(2)	
Unlisted Hazardous Wastes Characteristic of Corrosivity	RCRA Section 3001	D002
Unlisted Hazardous Wastes Characteristic of Ignitability	RCRA Section 3001	D001
Unlisted Hazardous Wastes Characteristic of Reactivity	RCRA Section 3001	D003
Unlisted Hazardous Wastes Characteristic of Toxicity	RCRA Section 3001	D007 (chromium)
Zinc and compounds	CWA Section 307(a)	
Zinc cyanide Zn(CN)2	CWA Section 311(b)(2) RCRA Section 3001	P121
Wastewater treatment sludges from electroplating operations (tin plating, zinc plating)	RCRA Section 3001	F006
Spent cyanide plating bath solutions from electroplating operations	RCRA Section 3001	F007

Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process	RCRA Section 3001	F008
Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	RCRA Section 3001	F009

The mechanism for past releases at the Site include poor operating procedures, poor housekeeping and are the result of the facility being abandoned and falling into disrepair. Chemicals abandoned in place are not being maintained and may also be released through vandalism. Materials identified at the Site include acids, cyanides, and spent plating solutions containing various metals. The environmental effects posed by these materials include the potential contamination of soil, the potential for migration of contamination into groundwater and an airborne release. There are several scenarios that could cause a release to the environment; however the primary concerns are from a fire or uncontrolled chemical reaction. Potassium cyanide and sodium cyanide, both present at the Site, if involved in a fire, can reach their decomposition temperature resulting in the release of hydrogen cyanide. In addition, an uncontrolled chemical reaction at the Site could cause a release of cyanide or other byproducts.

5. NPL status

The Site is not on the NPL.

6. Maps, pictures and other graphic representations

Attachment 1 includes photographic documentation of the facility.

B. Other Actions to Date

1. Previous actions

On July 22, 2016, EPA, NJDEP BER and the Neptune OEM conducted a joint Site visit to assess the eligibility for an EPA Removal Action. A joint entry into the building confirmed the presence of approximately 26 vats and approximately 650 containers of acids, corrosives, cyanides, and unknown materials. The building had no power, fire suppression system or security. There was also evidence of leakage from the roof in several locations in the building.

The Site was formally referred to EPA on July 22, 2016, and the Removal Action was initiated on July 25, 2016. Prior to the current Removal Action, there were no prior EPA actions at the Site.

2. Current actions

A CERCLA Removal Action at the Site was determined to be necessary and was initiated on July 25, 2016. As of October 28, 2016, EPA has expended over $252,000 to stabilize and secure the hazardous waste existing at the Site. These activities have been effective in limiting the risk of release; however the wastes in vats, drums and other containers remain at the Site. Activities conducted to date have included the inventory, categorization, sampling, analysis, segregation, and stabilization of materials located within the facility. EPA de-mobilized from the Site in October 2016 to await additional funding.

The additional funding requested in this Action Memorandum is necessary to implement the off-site disposal of the wastes existing on-site. Until these funds are received, EPA will continue to monitor Site conditions and address any new or emerging threats of release.

C. State and Local Authorities' Role

1. State and local actions, to date

On July 20, 2016, personnel from the NJDEP BER responded to the Site and discovered the materials abandoned inside the building. EPA responded to the Site along with NJDEP BER and the Neptune OEM on July 22, 2016. The Site was verbally referred to EPA from the NJDEP on July 22, 2016. Through their request, the NJDEP indicated they have insufficient resources to adequately address the threats posed by this Site in a timely manner. The local authorities face a similar inability to address the threats posed by the Site.

2. Potential for continued State/local response

There are no actions planned or being taken by the State or local government agencies to address the hazardous substances present at the Site.

III. THREAT TO PUBLIC HEALTH, OR WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threat to Public Health or Welfare or the Environment

Conditions at the Site meet the requirements for implementation of a CERCLA Removal Action under Section 300.415(b) of the NCP. There is a high potential for releases to occur based on the condition of the building and the incompatible materials located within.

(i) ***Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants, or contaminants (300.415(b)(2)(i));***

Container information gathered during the initial Site assessment and subsequent Removal Action, indicate that chemicals at the Site include acetic acid, chromic acid, hydrochloric acid, nitric acid, sulfuric acid, copper cyanide, nickel cyanide, potassium cyanide, silver cyanide and sodium cyanide. There are also drums of spent plating solutions, spent stripping solutions and plating residue solids.

Chromic acid is a potential carcinogen. Potential routes of exposure include inhalation, ingestion, skin contact and eye contact. Target organs include eyes, skin, liver, kidneys, skin, and blood. Effects of exposure to chromic acid include irritation to the respiratory system, eyes and skin. In addition, it may cause liver and kidney damage as well as leukocytosis (increased blood leukocytes) or leukopenia (reduced blood leukocytes). Other symptoms of exposure to chromic acid include nasal septum perforation, conjunctivitis, dermatitis, skin ulcers and eosinophilia (increased white cell count).

Exposure to acetic acid, hydrochloric acid, nitric acid and sulfuric acid may occur via inhalation, ingestion, skin contact, and eye contact. The effects of exposure to these materials may cause skin irritation, eye irritation, irritation to mucous membranes and dermatitis. Exposure to nitric or sulfuric acids may also cause bronchitis, dental erosion, emphysema, conjunctivitis, and pulmonary edema.

Potassium cyanide releases hydrogen cyanide gas when it comes in contact with water, high humidity and acids. Hydrogen cyanide is extremely toxic and acts as a chemical asphyxiate. Target systems include the cardiovascular system, central nervous system and the pulmonary system. Inhalation exposure to hydrogen cyanide gas released from potassium cyanide will cause symptoms within seconds. Exposure to hydrogen cyanide may be fatal within minutes.

Sodium cyanide exhibits nearly the same characteristics as potassium cyanide. Sodium cyanide releases hydrogen cyanide gas when it comes in contact with water, high humidity, and acids. Hydrogen cyanide is extremely toxic and acts as a chemical asphyxiate. Target systems include the cardiovascular system, central nervous system and the pulmonary system. Inhalation exposure to hydrogen cyanide gas released from sodium cyanide will cause symptoms within seconds. Exposure to hydrogen cyanide may be fatal within minutes.

Hydrogen cyanide can be generated from the chemical reactions involving materials such as potassium or sodium cyanides. It can also be formed when some cyanide compounds degrade during exposure to heat. It is extremely toxic and acts as a chemical asphyxiate. Routes of exposure include ingestion, skin contact, eye contact and inhalation. Target systems include the cardiovascular system, central nervous system and the pulmonary system. Inhalation exposure to hydrogen cyanide gas will cause symptoms within seconds. Exposure to hydrogen cyanide may be fatal within minutes.

Based on the conditions and materials present at the Site and the analysis of samples collected from the Site, the Site meets the criteria for a CERCLA Removal Action.

(iii) Hazardous substances, pollutants, or contaminants in drums, barrel, tanks, or other bulk storage containers, that may pose a threat of release (300.415(b)(2)(iii));

The facility contains approximately 650 drums, vats and small containers. Material identified in these containers include acetic acid, chromic acid, hydrochloric acid, nitric acid, sulfuric acid, copper cyanide, nickel cyanide, potassium cyanide, silver cyanide, and sodium cyanide. There are also drums of spent plating solutions, spent stripping solutions and plating residue solids.

Field analytical results of samples taken from containers at the Site indicate the presence of acids, cyanide compounds and plating solutions containing cyanides. Many of the containers are in poor condition and some are damaged. Spent cyanide plating solutions and plating residue solids are present in several of the plating vats abandoned. These plating vats are uncovered and may potentially be impacted by rainwater from the leaking roof of the building. Solutions containing cyanides have the potential to release hydrogen cyanide gas.

(v) Weather conditions may cause hazardous substances, or pollutants, or contaminants to migrate or be released (300.415(b)(2)(v));

The roof of the facility leaks in several locations. Water entering the facility could react directly with materials located inside the building or cause incompatible materials to mix. The resulting reactions have the potential to release hydrogen cyanide.

(vi) Threat of fire or explosion (300.415(b)(2)(vi)); and

The building does not have an operating fire suppression system. Potassium cyanide and sodium cyanide, both present at the Site, if involved in a fire, can reach their decomposition temperature. This would result in the release of hydrogen cyanide.

(vii) The availability of other appropriate federal or State response mechanisms to respond to the release (300.415 (b) (2) (vii)).

No other federal, State, or local response mechanism is available to respond in a timely manner to the significant threat presented by the Site. The local and state authorities have already indicated that they do not have the funds to respond to the threat of continued releases at the Site. The EPA is the only government agency capable of taking timely and appropriate actions to respond to the threat posed by the presence of hazardous substances at the Site.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from the Site may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTION AND ESTIMATED COSTS

A. Proposed Action

1. Proposed action description

The purpose of this Removal Action is to eliminate the threat of direct contact with the materials contained within the Site to the public and to prevent a release of those materials into the environment. To mitigate the threats posed by the Site, the EPA will sample, analyze, categorize, segregate and properly dispose of hazardous materials located at the Site.

Disposal of Site waste will be conducted in accordance with the EPA Off Site Rule. At the conclusion of this removal action, there will be no need for any post-removal Site controls.

2. Contribution to remedial performance

The Removal Action at the Site is consistent with the requirement of Section 104(a)(2) of CERCLA, which states, "any Removal Action undertaken . . . should . . . to the extent practicable, contribute to the efficient performance of any long-term Remedial Action with respect to the release or the threatened release concerned." The Removal Action proposed in this Action Memorandum is consistent with any future Remedial Action.

3. Engineering evaluation/cost analysis (EE/CA)

Due to the time-critical nature of this Removal Action, an EE/CA was not and will not be prepared.

4. Applicable or relevant and appropriate requirements (ARARs)

ARARs, within the scope of work applicable for this Removal Action, will be complied with to the extent practicable considering the exigencies of the situation. The potential ARARs identified for this removal action are the Resource Conservation and Recovery Act, the Clean Air Act, and the Hazardous Materials Transportation Uniform Safety Act.

5. Project schedule

Field activities were initiated on July 25, 2016. The activities completed, to date, have stabilized the Site. However, a significant threat of release remains due to the presence of hazardous substances EPA has staged awaiting disposal. EPA suspended field work in October 2016 to await additional funding. Upon receipt of the additional funds requested,

EPA estimates approximately two months of additional time will be required to complete the remaining field activities.

B. Estimated Costs

The estimated costs for the completion of this project are summarized below.

Direct Extramural Costs:	Verbal Authorization Granted on July 25, 2016	Verbal Authorization Granted on August 15, 2016	Requested Ceiling Increase	Proposed New Total Project Ceilings
Regional Removal Allowance Costs: Total Cleanup Contractor Costs (This cost category includes estimates for ERRS, subcontractors, Notices to Proceed, and Interagency Agreements with Other Federal Agencies. Incl. Contractor cost contingency	$120,000	$225,000	$650,000	$995,000
Total Cleanup Contractor Costs (ERRS)	$120,000	$225,000	650,000	$995,000
Total RST, including multiplier costs	$30,000	$25,000	$50,000	$105,000
Sub Total Extramural Cost	$150,000	$250,000	$700,000	$1,100,000
Extramural Costs Contingency (20% of Subtotal, Extramural Costs rounded to nearest thousand)	$0	$0	$0	$0
TOTAL REMOVAL ACTION PROJECT CEILING	$150,000	$250,000	$700,000	$1,100,000

*EPA direct and indirect costs, although cost recoverable, do not count toward the removal ceiling for this Removal Action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTIONS BE DELAYED OR NOT TAKEN

If the proposed actions described in this Action Memorandum are not implemented, the threats posed by the Site will persist. The Site is situated in a tightly developed, mixed residential/

commercial area. The Site is bordered by businesses to the north, west, and east and to the south by a Baptist church. The nearest business is approximately 10' from the northern Site border. The nearest residences are approximately 1/8 mile west of the Site. New Jersey State Highway 35, a major thoroughfare, borders the Site to the west. The New Jersey Transit/Amtrak North East Corridor passenger rail line is approximately ½ mile west of the Site. Neptune High School is approximately ½ mile east of the Site. The property is not fenced, and is being used by several local businesses to store items on the property's parking lot. Exposure to the contamination at the facility is of particular concern due to the adverse health effects of the cyanide-containing compounds.

VII. OUTSTANDING POLICY ISSUES

There are no known outstanding policy issues associated with the Site.

VIII. ENFORCEMENT

The company-owner of the Site and its President are in bankruptcy. The Office of Regional Counsel is evaluating the financial viability of these responsible parties and developing other enforcement options for cost recovery of the Removal Action expenditures.

The total EPA removal costs that will be eligible for cost recovery are estimated to be $1,783,280. The following chart describes the costs which EPA believes are eligible for cost recovery.

COST CATEGORY	AMOUNT
Direct Extramural Cost	$1,100,000
Direct Intramural Cost	$ 105,000
Subtotal Direct Cost	$ 1,205,000
Indirect Costs (Indirect Regional Cost Rate 47.99%)	$ 578,280
Estimated EPA Costs Eligible for Cost Recovery	$ 1,783,280

Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific direct costs, consistent with full cost accounting methodology effective 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, and may be adjusted during the course of the removal action. The estimates are for illustrative purposes only and their use in this Action Memorandum may not be relied upon by any third party as binding upon EPA. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

IX. RECOMMENDATION

This decision document represents the selected Removal Action for the Becker Plating Inc. Site located in the Township of Neptune, Monmouth County, New Jersey. This document was developed in accordance with CERCLA and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site continue to meet the NCP Section 300.415(b)(2) criteria for a Removal Action and I recommend your formal approval of the two Verbal Authorizations and Ceiling Increase documented in this Action Memorandum. The total project ceiling verbally authorized

to date is $400,000, of which $345,000 is for mitigation contracting. This Action Memorandum requests approval of an additional $700,000, of which $650,000 is for mitigation contracting. Approval of this increase will raise the total project ceiling to $1,100,000, of which $995,000 is for mitigation contracting. There are sufficient funds available in the FY 17 Advice of Allowance to continue this response action.

Please indicate your formal approval of the Verbal Authorizations and request for a Ceiling Increase for the Removal Action at the Becker Plating Inc. Site as per the current Delegation of Authority by signing below.

APPROVAL: _____ **DATE:** 12/29/16
Walter E. Mugdan, Director
Emergency and Remedial Response Division

DISAPPROVAL: _____ **DATE:** _____
Walter E. Mugdan, Director
Emergency and Remedial Response Division

Cc:
W. Mugdan, ERRD-D
J. Prince, ERRD-DD
E. Mosher, ERRD-RPB
B. Grealish, ERRD-RAB
C. Petersen, ERRD-NJRB
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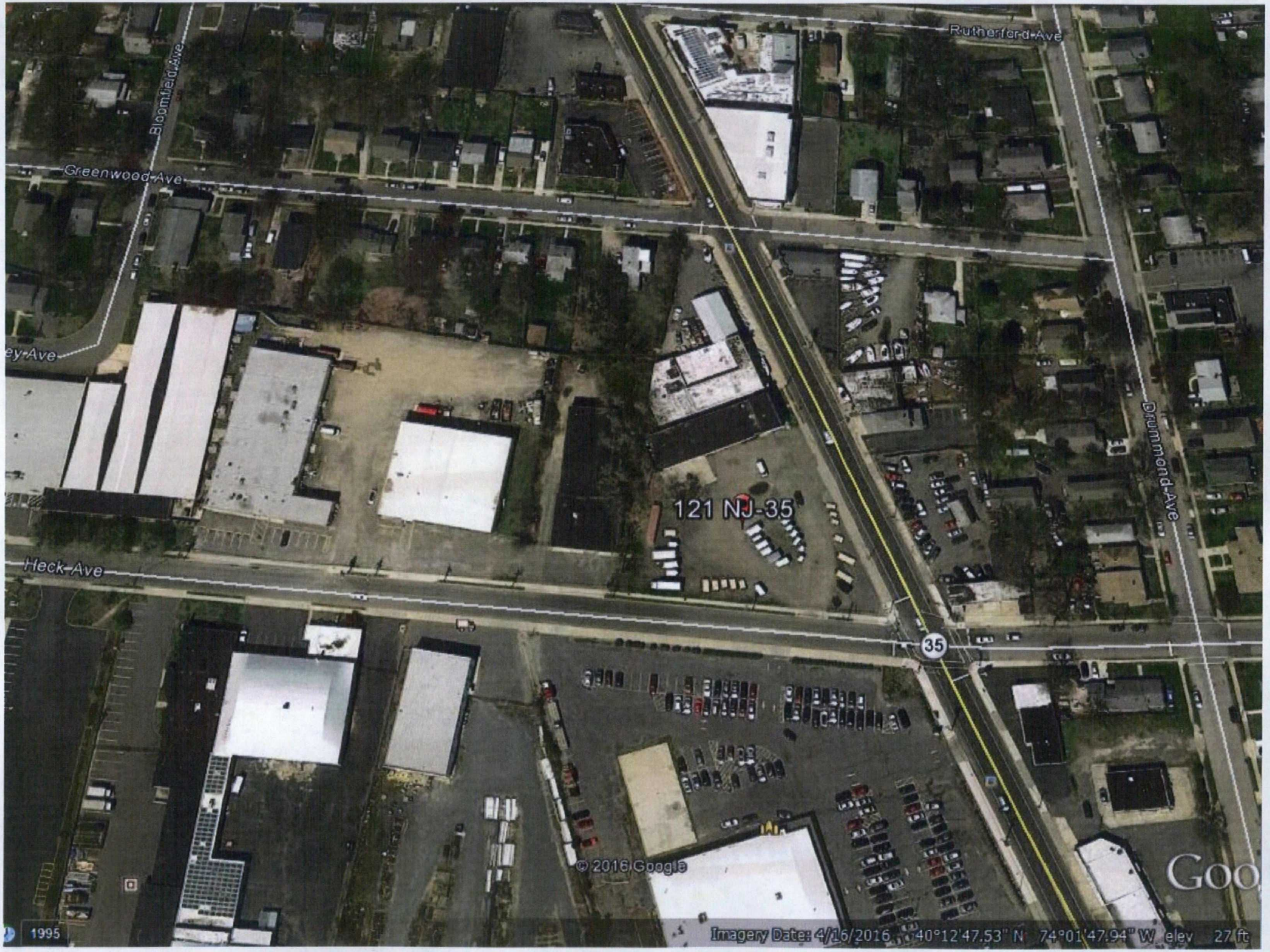
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Bloomfield Ave
Greenwood Ave
121 NJ-35
Heck Ave
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Drummond Ave
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